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GenOMICC study - Looking at DNA of patients with severe illness and injury to find the genes that cause some people to become very unwell and be admitted to intensive care

Submission date
01/06/2021

Registration date
25/06/2021

Last Edited
15/05/2026

Recruitment status
Recruiting

Overall study status
Ongoing

Condition category
Infections and Infestations

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
This study aims to identify genetic predisposition to specific syndromes of critical illness. Specifically, susceptibility to life-threatening infections caused by an identified pathogen, and susceptibility to death following the onset of organ failure due to sepsis or sterile injury. In order to maximise the probability of identifying host genetic loci associated with susceptibility, we will restrict some analyses to younger individuals in good general health, and lacking in known predisposing factors.
The same principle was used to determine an upper age limit for inclusion for some analyses. With advancing age, there is an increase in undiagnosed comorbidity, frailty, and susceptibility to serious complications of infection or critical injury. There is therefore an increase in the probability of susceptibility to, and mortality from, critical illness that is consequent upon non-genetic factors.

Who can participate?
Prospective recruitment - Patients meeting the entry criteria will be asked to provide informed consent, and a single DNA sample.
Recruitment of survivors - The group of survivors eligible for recruitment for this study are generally healthy individuals who have suffered critical illness.

What does the study involve?
Informed consent, and a single DNA sample.

What are the possible benefits and risks of participating?
There are no potential benefits to an individual from participation. However, if successfully completed, this study may provide fundamental insights into the pathogenesis of critical illness in infectious diseases and may ultimately lead to the development of novel treatments that could prevent flu and other diseases.

Where is the study run from?
The University of Edinburgh (UK)

When is the study starting and how long is it expected to run for?
December 2014 to August 2029

Who is funding the study:
Sepsis Research (FEAT), Intensive Care Society, the Wellcome Trust, and the Medical Research Council (UK)

Who is the main contact:
Dr Kenneth Baillie,
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Contact information

Type(s)
Scientific

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Dr Kenneth Baillie

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Additional identifiers

Integrated Research Application System (IRAS)
189676

Integrated Research Application System (IRAS)
269326

Protocol serial number
(Scotland), (England/Wales)

Study information

Scientific Title

Genetics Of susceptibility and Mortality In Critical Care (GenOMICC)

Acronym
GenOMICC

Study objectives
Current study objectives as of 24/10/2025:

To find the genes that affect why some people become very sick and others don't. If we can find these genes they can help us to develop better treatments for other patients in the future.

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Previous study objectives:

What are the genes that cause some people to be susceptible to life-threatening infection, or death from critical illness?

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Approved 08/12/2016, Scotland A REC (2nd Floor Waverley Gate, 2 - 4 Waterloo Place, Edinburgh, EH1 3EG, UK; +44(0)131 465 5678; Manx.Neill@nhslothian.scot.nhs.uk), ref 15/SS/0180/AM01/1
2. Approved 10/10/2019, Health Research Authority (Skipton House, 80 London Road, London, SE1 6LH, UK; +44 (0)20 7972 2545; hra.approval@nhs.net), ref: 19/WM/0247

Primary study design
Observational

Study design
Multi-centre prospective observational study

Study type(s)
Screening

Health condition(s) or problem(s) studied
This study aims to identify genetic predisposition to specific syndromes of critical illness and outbreaks or exposures of public health interest. This includes susceptibility to life-threatening infections, and susceptibility to adverse outcomes, including mortality, following the onset of organ failure due to sepsis or sterile injury

Interventions
Current interventions as of 24/10/2025:

Current protocol dated 23/10/2024 (Version 5):
Participants will be asked to consent by signing a consent form. A single blood sample will be taken (roughly 4 ml) to get a DNA sample. If a participant is unable to give a blood sample for

any reason, a sample of saliva may be taken instead in some circumstances. For those participants who have been discharged from the hospital, a research nurse will arrange a home visit at a convenient time, or a saliva sample kit can be sent if preferred.

Previous interventions as of 15/04/2024:

People with severe illness (such as COVID-19, influenza, sepsis, and other causes of critical illness), and healthy volunteers (for comparison) will be approached to participate in the study.

Participants will be asked to consent by signing a consent form. A single blood sample will be taken (roughly 4 ml) to get a DNA sample. If a participant is unable to give a blood sample for any reason, a sample of saliva may be taken instead in some circumstances. For those participants who have been discharged from the hospital, a research nurse will arrange a home visit at a convenient time, or a saliva sample kit can be sent if preferred.

Previous interventions:

People with severe illness (such as COVID-19, influenza, sepsis, and other causes of critical illness), and healthy volunteers (for comparison) will be approached to participate in the study.

Participants will be asked to consent by signing a consent form. A single blood sample will be taken (9 ml; roughly 2 teaspoons) to get a DNA sample. If a participant is unable to give a blood sample for any reason, a sample of saliva may be taken instead in some circumstances. For those participants who have been discharged from the hospital, a research nurse will arrange a home visit at a convenient time, or a saliva sample kit can be sent if preferred.

Intervention Type
Other

Primary outcome(s)
60-day survival measured using electronic medical records post recruitment

Key secondary outcome(s)
The genetic data from severely ill patients will be measured in comparison with the genetic data from volunteers who suffered only mild symptoms using whole genome sequencing and/or SNP arrays at one-time point to try to determine which genes might play a part in an illness progressing to critical illness

Completion date
31/08/2029

Eligibility

Key inclusion criteria
Current key inclusion criteria as of 24/10/2025:

The entry criteria below are approved for use in the UK:
23 October 2024 v5.0

Patients will be recruited who:
1. Are deemed, in the view of the treating clinician, to require continuous cardiovascular or respiratory monitoring or any organ support
2. Provide appropriate consent or assent
3. Whose primary reason for admission is one of the following primary diagnoses:
-Critical illness caused by any confirmed or suspected infection OR
-Common non-infectious critical illness syndromes:
--Pancreatitis of any aetiology
--Full thickness burns covering >20% of body surface area
--Rare non-infectious critical illness syndromes:
-Haemophagocytic syndrome
--Still's disease
--Heat stroke
--Radiation poisoning
-Suspected reactions to therapeutic agents: This includes cell therapies, gene therapy, CAR T-cell therapy, investigational drugs or vaccines in the view of the treating clinician. For example:
--Stevens-Johnson syndrome (SJS) or toxic epidermal necrolysis (TEN), or SJS-TEN overlap to any therapeutic agent
--Cell therapy associated reaction
--Acute hepatitis associated with gene therapy in any age group
-Confirmed or suspected presence of an emerging critical illness syndrome, such as:
--unexplained or idiosyncratic presentations of acute organ injury in the view of the treating clinician
confirmed or suspected exposures of public health interest in the view of the study leadership in consultation with public health agencies. An updated description of these syndromes will be maintained by the central study team on our website.
-Non-infectious critical illness syndromes in children or babies:
--Preterm birth (babies born <32 weeks postmenstrual age)
-Acute seronegative or unexplained hepatitis in children:
--patients under the age of 16 with elevated liver transaminase (ALT > 500 iU/L or AST > 500 iU /L), not due to other diagnoses such as hepatitis viruses A-E, autoimmune hepatitis, or poisoning
-Organ Support. Examples of eligible organ support include, but are not limited to:
--Respiratory: High flow nasal oxygen (HFNO), Continuous positive airway pressure (CPAP), Non-invasive ventilation (NIV), Invasive mechanical ventilation (including following intubation for airway protection)
--Cardiovascular: any vasopressors or inotropes that are given by continuous infusion, extracorporeal membrane oxygenation (ECMO)
--Renal: continuous or intermittent haemofiltration/dialysis/diafiltration where it is used to treat acute disease in a patient who is not normally in receipt of renal support

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Previous key inclusion criteria:

1. Patients will be recruited who:
1.1. Are deemed, in the view of the treating physician, to require continuous cardiovascular or respiratory monitoring or invasive mechanical ventilation,
1.2. AND provide appropriate consent or assent,
1.3. AND present with one of the following primary diagnoses:

2. Group 1: specific infectious syndromes in highly-selected patients
2.1. COVID-19. Confirmed or suspected COVID-19.
2.2. Influenza. Confirmed or suspected infection with influenza virus.
2.3. Secondary pneumonia. Acute pneumonia complicating confirmed infection with influenza virus.
2.4. Dengue. Confirmed or suspected infection with dengue virus.
2.5. RSV. Confirmed infection with respiratory syncytial virus.
2.6. Emerging infections. Confirmed or suspected infection with an emerging infection (see below).
3. Group 2: specific non-infectious critical illness syndromes:
3.1. Burns. Full-thickness burns covering >20% of body surface area.
3.2. Emerging critical illness syndromes. Confirmed or suspected presence of an emerging critical illness syndrome. These are unexplained or idiosyncratic presentations of acute organ injury, or suspected reactions to therapeutic agents, including:
3.3. acute disease associated with inhalation of noxious substances or vapours, such as "vaping"
3.4. acute disease associated with CAR T-cell therapy
4. Group 3: extreme critical illness
4.1. Extra-corporeal life support. Requirement for continuous veno-venous extra-corporeal support for respiratory failure of any aetiology.
5. Group 4: common/nonspecific critical illness syndromes:
5.1. Cellulitis. Soft tissue infections causing systemic sepsis.
5.2. Pneumonia. Primary pneumonia of any aetiology, with radiographic changes at presentation to critical care. Pneumonia is defined as: symptoms and signs consistent with an acute lower respiratory tract infection associated with new radiographic shadowing for which there is no other explanation (eg, not pulmonary oedema or infarction). Where this illness is the primary reason for hospital admission and is managed as pneumonia, the patient is eligible for inclusion. (Harris et al, 2011). No microbiology information is required to meet this entry criterion.
5.3. Pancreatitis. Pancreatitis of any aetiology.
5.4. Emerging Infections
Emerging infections are by their nature unpredictable and present a significant challenge to the international research community. In order to ensure research preparedness, in accordance with the principles laid out by the International Severe Acute and Emerging Infection Consortium (ISARIC)(Dunning et al. 2014), patients will be recruited to this study if they have confirmed or suspected infection with a novel pathogen, a new strain of an existing pathogen, or a re-emerging known pathogen, that causes life-threatening illness. This will include the Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS), highly pathogenic strains of influenza, Ebola virus disease and other epidemics of viral haemorrhagic fever.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Mixed

Sex
All

Total final enrolment
0

Key exclusion criteria
Current key exclusion criteria as of 24/10/2025:

Bone marrow transplant recipients

Previous participant exclusion criteria as of 25/01/2023:

There are no exclusion criteria. All consenting patients can be recruited.

Previous participant exclusion criteria:

Exclusion criteria do not apply to COVID-19. All consenting COVID-19 patients will be included. For all inclusion categories apart from COVID-19, patients who are functionally limited by any comorbid illness (such as frailty, heart failure, chronic obstructive pulmonary disease (COPD), or reduced exercise tolerance of any cause) or have significant immunosuppression (such as cancer chemotherapy or acquired immune deficiency syndrome) will be excluded from this study.

Date of first enrolment
01/01/2016

Date of final enrolment
31/08/2029

Locations

Countries of recruitment
United Kingdom

England

Northern Ireland

Scotland

Wales

Study participating centre
Royal Infirmary of Edinburgh
51 Little France Crescent
Edinburgh
Scotland
EH16 4SA

Study participating centre
Western General Hospital
Crewe Road
Edinburgh
Scotland
EH4 2XU

Study participating centre
St Johns Hospital
Howden W Road
Howden
Livingston
Scotland
EH54 6PP

Study participating centre
Royal Hospital for Sick Children
Royal Infirmary of Edinburgh
51 Little France Crescent
Edinburgh
Scotland
EH16 4SA

Study participating centre
Airedale NHS Foundation Trust
Skipton Road
Steeton
KEIGHLEY
England
BD20 6TD

Study participating centre
Alder Hey Children's NHS Foundation Trust
Eaton Road
Liverpool
England
L12 2AP

Study participating centre

Royal Gwent Hospital
Cardiff Road
Newport
Wales
NP20 2UB

Study participating centre
The Grange Hospital
Llanyravon
CWNBRAN
Wales
NP44 2XJ

Study participating centre
Ashford and St Peters Hospital
Guildford Road
CHERTSEY
England
KT16 0PZ

Study participating centre
Queens Hospital
Barking, Havering and Redbridge University Hospitals NHS Trust
Rom Valley Way
ROMFORD
England
RM7 0AG

Study participating centre
Barnsley District General Hospital
Barnsley Hospital NHSFT
Gawber Road
BARNSLEY
England
S75 2EP

Study participating centre
The Royal London Hospital
Whitechapel Road, Whitechapel

London
England
E1 1BB

Study participating centre
Bedford Hospital NHS Trust
King's Place
Britannia Road
BEDFORD
England
MK42 9DJ

Study participating centre
Belfast Health and Social Care Trust
Royal Victoria Hospital, 274 Grosvenor Road
Belfast
Northern Ireland
BT12 6BA

Study participating centre
Belfast City Hospital
Lisburn Rd
Belfast
Northern Ireland
BT9 7AB

Study participating centre
St Bartholomew's Hospital
W Smithfield,
London
England
EC1A 7BE

Study participating centre
Newham University Hospital
Glen Road
London
England
E13 8SL

Study participating centre
Whipps Cross Hospital
Whipps Cross Rd, Leytonstone
London
England
E11 1NR

Study participating centre
Mile End Hospital
via A104, Bancroft Rd
London
England
E1 4DG

Study participating centre
Ysbyty Gwynedd
Penrhosgarnedd
BANGOR
Wales
LL57 2PW

Study participating centre
Glan Clwyd Hospital
Sarn Lan, Bodelwyddan
Denbighshire
Wales
LL18 5UJ

Study participating centre
Wrexham Maelor Hospital
Crosenewydd Road
WREXHAM
Wales
LL13 7TD

Study participating centre
Birmingham Women's and Children's Hospital
Steelhouse Lane

BIRMINGHAM
England
B4 6NH

Study participating centre
Blackpool Teaching Hospitals NHS Foundation Trust
Blackpool Victoria Hospital
Whinney Heys Road, Lancashire,
BLACKPOOL
England
FY3 8NR

Study participating centre
Bolton NHS Foundation Trust,
Minerva Road, Farnworth,
Bolton
England
BL4 0JR

Study participating centre
Bradford Teaching Hospitals NHS Foundation Trust
Duckworth Lane
BRADFORD
England
BD9 6R

Study participating centre
Princess Royal Hospital
Lewes Road
Haywards Heath
England
RH16 4EX

Study participating centre
Royal Sussex County Hospital
Eastern Road
Brighton
England
BN2 5BE

Study participating centre
ROYAL ALEXANDRA CHILDREN'S HOSPITAL
Royal Sussex County Hospital
Eastern Road
BRIGHTON
Brighton
England
BN2 5BE

Study participating centre
Stoke Mandeville Hospital
Buckinghamshire Healthcare NHS Trust
Mandeville Road
AYLESBURY
England
HP21 8AL

Study participating centre
Calderdale Royal Hospital
Salterhebble
HALIFAX
England
HX3 0PW

Study participating centre
Huddersfield Royal Infirmary
Acre Street
Lindley
HUDDERSFIELD
England
HD3 3EA

Study participating centre
Addenbrooke's Hospital
Hills Road,
Cambridge
England
CB2 0QQ

Study participating centre

University Hospital of Wales and Queen Elizabeth II Wales
Heath Park,
CARDIFF
Wales
CF14 4XW

Study participating centre
Chelsea and Westminster Hospital,
369 Fulham Road
London
England
SW10 9NH

Study participating centre
West Middlesex University Hospital
R&D Office
4thFloor, East wing
West Middlesex University Hospital
Twickenham Road
ISLEWORTH
England
TW7 6AF

Study participating centre
Chesterfield Royal Hospital
Chesterfield Road, Calow,
Chesterfield,
England
S44 5BL

Study participating centre
Countess of Chester Hospital
Liverpool Road,
Chester,
England
CH2 1UL

Study participating centre
University Hospital of North Durham
North Road
DURHAM

England
DH1 5TW

Study participating centre
County Durham and Darlington NHS Foundation Trust,
Darlington Memorial Hospital,
Hollyhurst Road,
Darlington,
England
DL3 6HX

Study participating centre
Croydon University Hospital,
530 London Road,
Croydon,
England
CR7 7YE

Study participating centre
Royal Glamorgan Hospital,
Ynysmaerdy, Llantrisant,
Rhondda Cynon Taf
Wales
CF72 8XR

Study participating centre
Prince Charles Hospital
Gurnos Road
MERTHYR TYDFIL
Wales
CF47 9DT

Study participating centre
Princess of Wales Hospital
Coity Road
BRIDGEND
Wales
CF31 1RQ

Study participating centre
Darent Valley Hospital
Darenth Wood Rd,
Dartford
England
DA2 8DA

Study participating centre
Dorset County Hospital
Williams Avenue,
Dorchester,
England
DT1 2JY

Study participating centre
East and North Hertforshire NHS Trust
Lister Hospital,
Coreys Mill Lane,
Stevenage,
England
SG1 4AB

Study participating centre
Macclesfield District General Hospital,
East Cheshire NHS Trust
Victoria Road,
Macclesfield,
England
SK10 3BL

Study participating centre
The William Harvey Hospital
Kennington Road
ASHFORD
England
TN24 0LZ

Study participating centre
Queen Elizabeth the Queen Mother Hospital
St Peters Road
KENT

Margate
England
CT9 4AN

Study participating centre
Kent and Cantebury Hospital
Ethelbert Road
Kent
Kent,
England
CT1 3NG

Study participating centre
Royal Blackburn Teaching Hospital
Haslingden road,
Lancashire
Blackburn
England
BB2 3HH

Study participating centre
ESNEFT Colchester General Hospital,
Turner Road,
Essex
Colchester
England
CO4 5JR

Study participating centre
ESNEFT Ipswich Hospital
Health Road,
Ipswich,
England
IP4 5PD

Study participating centre
Eastbourne District General Hospital and Conquest Hospital,
Kings Drive, East Sussex,
Eastbourne
England
BN21 2UD

Study participating centre
Frimley Health NHS Foundation Trust
Pine House,
Frimley,
Surrey,
Camberley,
England
GU16 7UJ

Study participating centre
Queen Elizabeth Hospital,
Queen Elizabeth Avenue,
Sheriff Hill,
Gateshead,
England
NE9 6SX

Study participating centre
Gloucestershire Royal Hospital
Great Western Road,
Gloucester
England
GL1 3NN

Study participating centre
Aberdeen Royal Infirmary
Foresterhill Road,
Aberdeen
Scotland
AB25 2ZN

Study participating centre
UCL Great Ormond Street Institute of Child Health (ICH) & Great Ormond Street Hospital (GOSH)
30 Guilford Street,
London
England
WC1N 1EH

Study participating centre
Great Western Hospital NHS Foundation Trust
Great Western Hospital ,
Marlborough Road,
Wiltshire,
Swindon
England
SN3 6BB

Study participating centre
Guy's Hospital,
Greta Maze Pond,
London
England
SE1 9RT

Study participating centre
Guy's and St Thomas' NHS Foundation Trust
Sydney Street,
London,
England
SW3 6NP

Study participating centre
Royal Hampshire County Hospital
Romsey Rd,
Winchester,
England
SO22 5DG

Study participating centre
Basingstoke and North Hampshire Hospital
Aldermaston Road,
Hampshire
Basingstoke,
England
RG24 9NA

Study participating centre
Harrogate District Hospital NHS Foundation Trust
Lancaster Park Road,

North Yorkshire,
Harrogate,
England
HG2 7SX

Study participating centre
Homerton University Hospital NHS Foundation Trust
Homerton Row,
London
England
E9 6SR

Study participating centre
Hull Royal Infirmary,
Anlaby Rd,
Hull
England
HU3 2JZ

Study participating centre
Withybush Hospital
Fishguard Road,
Pembrokeshire,
Haverfordwest,
Wales
SA61 2PZ

Study participating centre
Glangwili General Hospital
Dolgwili Road
CARMARTHEN
Wales
SA31 2AF

Study participating centre
Tŷ Geraint Bronglais General Hospital
Caradoc Rd,
ABERYSTWYTH
Wales
SY23 1ER

Study participating centre
Prince Philip Hospital,
Dafen,
Llanelli,
Wales
SA14 8QF

Study participating centre
St. Mary's Hospital
Praed Street
London
England
W2 1NY

Study participating centre
Charing Cross Hospital
Fulham Palace Road
London
England
W6 8RF

Study participating centre
Hammersmith Hospital
150, Du Cane Road
London
England
W12 0HS

Study participating centre
St Mary's Hospital,
Parkhurst Road
Isle of Wight
Newport,
England
PO30 5TG

Study participating centre
James Paget Hospital,
Lowestoft Road,

Gorleston-on-Sea,
Norfolk,
Great Yarmouth,
England
NR31 6LA

Study participating centre
Kettering General Hospital NHS Foundation Trust,
Rothwell Road,
Kettering
Northants
England
NN16 8UZ

Study participating centre
Kings College Hospital,
Denmark Hill,
London NO COUNTRY SPECIFIED, assuming England
England
Kings College Hospital, Denmark Hill, London, SE5 9RS

Study participating centre
Kingston Hospital NHS Foundation Trust,
Galsworthy Road, Surrey,
Kingston Upon Thames,
England
KT2 7QB

Study participating centre
Royal Preston Hospital,
Sharoe Green Lane,
Fulwood,
Preston,
England
PR2 9HT

Study participating centre
St James University Hospital
Beckett Street

LEEDS NO COUNTRY SPECIFIED, assuming England
England
LS9 7TF

Study participating centre
Leeds General Infirmary
Great George St,
Leeds
England
LS1 3EX

Study participating centre
Queen Elizabeth Hospital,
Stadium Road,
Woolwich
England
SE18 4QH

Study participating centre
University Hospital Lewisham
Lewisham High St
Lewisham
London
England
SE13 6LH

Study participating centre
Liverpool Heart And Chest Hospital NHS Foundation Trust,
Galsworthy Road,
Liverpool_Chest Upon Thames,
Surrey
England
KT1 7QB

Study participating centre
The Royal Liverpool University Hospital,
Prescot Street,
Liverpool
England
L7 8XP

Study participating centre
Aintree University Hospital
Longmoor Lane
Liverpool
England
L9 7AL

Study participating centre
Northwick Park Hospital
Watford Road,
Harrow
England
HA1 3UJ

Study participating centre
Ealing Hospital
Uxbridge Road,
Southall
England
UB1 3HW

Study participating centre
Maidstone and Tunbridge Wells NHS Trust
Hermitage Lane,
Maidstone,
Kent
England
ME16 9QQ

Study participating centre
Tunbridge Wells Hospital
Tonbridge Road
PEMBURY
England
TN2 4QJ

Study participating centre
Manchester University Manchester Royal Infirmary NHS Foundation Trust
North Road

Manchester
England
M13 9WL

Study participating centre
Wythenshawe Hospital
Southmoor Road
Manchester
England
M23 9QZ

Study participating centre
Royal Manchester Children's Hospital
North Road
Oxford Road Campus
Manchester
England
M13 9WL

Study participating centre
Medway NHS Foundation Trust
Gate Lodge, Maritime Hospital,
Windmill Road,
Gillingham,
Kent
England
ME7 5NY

Study participating centre
Basildon University Hospital,
Nethermayne,
Basildon
England
SS16 5NL

Study participating centre
Southend Hospital
Prittlewell Chase
WESTCLIFF-ON-SEA
England
SS0 0RY

Study participating centre
Broomfield Hospital,
Broomfield Hospital, Court Road,
Chelmsford
England
CM1 7ET

Study participating centre
Pinderfields Hospital,
Mid Yorkshire Hospitals NHS Trust
Aberford Road,
Wakefield
England
WF1 4AL

Study participating centre
Milton Keynes University Hospital
Standing Way,
Eaglestone,
Milton Keynes
England
MK6 5LD

Study participating centre
Crosshouse Hospital
Kilmarnock Road
KILMARNOCK
Scotland
KA2 0BE

Study participating centre
University Hospital Ayr
Dalmellington Rd,
AYR
Scotland
KA6 6DX

Study participating centre

Borders General Hospital
Huntlyburn Terrace
MELROSE
Scotland
TD6 9BS

Study participating centre
Dumfries and Galloway Royal Infirmary
Cargenbridge
DUMFRIES
Scotland
DG2 8RX

Study participating centre
Victoria Hospital
Hayfield Road
KIRKCALDY
Scotland
KY2 5AH

Study participating centre
Forth Valley Royal Hospital
Stirling Road
LARBERT
Scotland
FK5 4WR

Study participating centre
Queen Elizabeth University Hospital
1345 Govan Road
Glasgow
Scotland
G51 4TF

Study participating centre
Glasgow Royal Infirmary
10-16 Alexandra Parade
Glasgow
Scotland
G31 2ER

Study participating centre
Royal Hospital for Children,
Queen Elizabeth University Hospital,
1345 Govan Road,
Glasgow
Scotland
G51 4TF

Study participating centre
Royal Alexandra Hospital
Corsebar Road
Paisley
Scotland
PA2 9PN

Study participating centre
Raigmore Hospital
Old Perth Road
Inverness
Scotland
IV2 3UJ

Study participating centre
University Hospital Hairmyres
Eaglesham Road
East Kilbride
Scotland
G75 8RG

Study participating centre
University Hospital Wishaw,
50 Netherton Street
Wishaw
Scotland
ML2 0DP

Study participating centre
University Hospital Monklands
Monkscourt Avenue

AIRDRIE
Scotland
ML6 0JS

Study participating centre
Golden Jubilee National Hospital
Agamemnon Street
Clydebank
Glasgow
Scotland
G81 4DY

Study participating centre
Norfolk & Norwich University NHS Foundation Trust,
Colney Lane
Norwich
England
NR4 7UY

Study participating centre
Southmead Hospital
Westbury-on-Trym
Bristol
England
BS10 5NB

Study participating centre
Cumberland Infirmary
New Town Road
Carlisle
Cumbria
England
CA2 7HY

Study participating centre
West Cumberland Hospital
Homewood Road
Whitehaven
CUMBRIA NO COUNTRY SPECIFIED, assuming England
England
CA28 8JG UK

Study participating centre
North Middlesex University Hospital NHS Trust
Sterling Way
London
England
N18 1QX

Study participating centre
University Hospital of North Tees
Hardwick
STOCKTON ON TEES
England
TS19 8PE

Study participating centre
Northampton General Hospital NHS Trust
Cliftonville
NORTHAMPTON
England
NN1 5BD

Study participating centre
North Devon District Hospital
Raleigh Park
BARNSTAPLE
England
EX31 4JB

Study participating centre
Antrim Area Hospital,
Bush Road,
Antrim
Northern Ireland
BT41 2RL

Study participating centre
Diana, Princess of Wales Hospital
Scartho Road

GRIMSBY
England
DN33 2BA

Study participating centre
Scunthorpe General Hospital,
Cliff Gardens,
Scunthorpe,
England
DN15 7BH

Study participating centre
North Tyneside General Hospital,
Rake Lane,
North Shields
England
NE29 8NH

Study participating centre
Wansbeck General Hospital
Woodhorn Ln,
Ashington
England
NE63 9JJ

Study participating centre
Northumbria Specialist Emergency Care Hospital
Northumbria Way,
Cramlington
England
NE23 6NZ

Study participating centre
Nottingham University Hospital Queens
Queens Medical Centre Campus
NOTTINGHAM
England
NG7 2UH

Study participating centre
John Radcliffe Hospital
Headley Way
Headington
OXFORD
England
OX3 9DU

Study participating centre
Royal Papworth Hospital NHS Foundation Trust
Papworth Road
CAMBRIDGE
England
CB2 0AY

Study participating centre
Queen Alexandra Hospital
Portsmouth
COSHAM
England
PO6 3LY

Study participating centre
Queen Victoria Hospital
Holtye Rd,
East Grinstead
England
RH19 3DZ

Study participating centre
Royal Berkshire Hospital
London Road
BERKSHIRE
Reading
England
RG1 5AN

Study participating centre
Royal Cornwall Hospital
Treliske
Truro

England
TR1 3LJ

Study participating centre
Royal Devon and Exeter Foundation Trust
Barrack Road
EXETER
England
EX2 5DW

Study participating centre
Royal Free Hospital NHS Trust,
Pond St,
Hampstead,
London
England
NW3 2QG

Study participating centre
Barnet Hospital
Wellhouse Lane
BARNET
England
EN5 3DJ

Study participating centre
Royal Surrey County Hospital,
Egerton Road,
Guildford,
England
GU2 7XX

Study participating centre
Royal United Hospitals Bath NHS Foundation Trust,
Combe Park,
Bath
England
BA1 3NG

Study participating centre
Salford Royal NHS Foundation Trust
544 Eccles New Road
Salford
MANCHESTER
England
M6 8HD

Study participating centre
Salisbury District Hospital
Odstock Road
SALISBURY
England
SP2 8BJ

Study participating centre
Sheffield Childrens Hospital
Western Bank
SHEFFIELD
England
S10 2TH

Study participating centre
The Royal Hallamshire Hospital
Glossop Road
SHEFFIELD
England
S10 2JF

Study participating centre
Northern General Hospital
Herries Rd,
Sheffield
England
S5 7AU

Study participating centre
King's Mill Hospital
Mansfield Road

SUTTON-IN-ASHFIELD
England
NG17 4JL

Study participating centre
Royal Shrewsbury Hospital
Mytton Oak Road,
Shrewsbury
SHROPSHIRE
England
SY3 8XQ

Study participating centre
Princess Royal Hospital
Apley Castle,
Apley
TELFORD
England
TF1 6TF

Study participating centre
Musgrove Park Hospital,
Parkfield Drive,
Taunton
SOMERSET
England
TA1 5DA

Study participating centre
James Cook University Hospital
Marton road
Middlesbrough
CLEVELAND
England
TS4 3BW

Study participating centre
Sunderland Royal Hospital
Kayll Road

SUNDERLAND
England
SR4 7TP

Study participating centre
Warwick Hospital,
Lakin road,
Warwick
England
CV34 5BW

Study participating centre
Craigavon Area Hospital
68 Lurgan Road
PORTADOWN
Northern Ireland
BT63 5QQ

Study participating centre
Southport and Ormskirk Hospitals NHS Trust
Southport DGH,
Town lane
Kew
SOUTHPORT
England
PR8 6PN

Study participating centre
St Georges Hospital NHS Foundation Trust,
Blackshaw Road
TOOTING
London
England
SW17 0QT

Study participating centre
Whiston Hospital, Warrington Road, Prescot, L35 5DR
Warrington Road,
Prescot,
England
L35 5DR

Study participating centre
Stepping Hill Hospital
Stockport NHS Foundation
Poplar Grove, Hazel Grove,
STOCKPORT
England
SK2 7JE

Study participating centre
East Surrey Hospital
Canada Avenue
REDHILL
England
RH1 5RH

Study participating centre
Morriston Hospital
Heol Maes Eglwys
MORRISTON
SWANSEA
Wales
SA6 6NL

Study participating centre
Tameside General Hospital
Fountain Street
ASHTON-UNDER-LYNE
England
OL6 9R

Study participating centre
Ninewells Hospital and Medical School
James Arrott Drive
DUNDEE
Scotland
DD1 9SY

Study participating centre

The Christie NHS Foundation Trust,
Wilmslow Road,
Manchester
England
M20 4BX

Study participating centre
Russells Hall Hospital,
Pensnett Rd,
Dudley,
England
DY1 2HQ

Study participating centre
Royal Victoria Infirmary
Queen Victoria Road
NEWCASTLE UPON TYNE
England
NE1 4LP

Study participating centre
Fairfield General Hospital
Rochdale Old Road
BURY
England
BL9 7TD

Study participating centre
The Royal Oldham Hospital
Rochdale Road
OLDHAM
England
OL1 2JH

Study participating centre
North Manchester General Hospital
Delaunays Road,
Crumpsall
MANCHESTER
England
M8 5RB

Study participating centre
The Princess Alexandra Hospital
Hamstel Road
Harlow
ESSEX
England
CM20 1QX

Study participating centre
The Queen Elizabeth Hospital NHS Foundation Trust
Gayton Road
KING'S LYNN
England
PE30 4ET

Study participating centre
Rotherham Hospital
Moorgate Road
ROTHERHAM
England
S60 2UD

Study participating centre
The Royal Marsden Hospital
Fulham Road
LONDON
England
SW3 6JJ

Study participating centre
New Cross Hospital
The Royal Wolverhampton NHS Trust
The Chesnuts
WOLVERHAMPTON
England
WV10 0QP

Study participating centre

Torbay Hospital
Lowes Bridge
TORQUAY
England
TQ2 7AA

Study participating centre
Lincoln County Hospital
Greetwell Road
LINCOLN
England
LN2 5QY

Study participating centre
Pilgrim Hospital
Sibsey Rd
BOSTON
England
PE21 9QS

Study participating centre
University College Hospital
235 Euston Road
LONDON
England
NW1 2BU

Study participating centre
National Hospital for Neurology and Neurosurgery
Queen Square
LONDON
England
WC1N 3BG

Study participating centre
Royal Derby Hospital
Uttoxeter Road,
DERBY
England
DE22 3NE

Study participating centre
Queen's Hospital
Belvedere Road,
Burton Upon Trent
STAFFORDSHIRE
England
DE13 0RB

Study participating centre
Southampton General Hospital
Tremona Road
Southampton
HAMPSHIRE
England
SO16 6YD

Study participating centre
Queen Elizabeth Hospital
Heritage Building
Edgbaston
BIRMINGHAM
England
B15 2TH

Study participating centre
Birmingham Heartlands Hospital
Bordesley Green Road
BIRMINGHAM
England
B9 5SS

Study participating centre
Good Hope Hospital
Rectory Road
SUTTON
COLDFIELD
England
B75 7RR

Study participating centre
Bristol Royal Infirmary
Upper Maudlin Street
BRISTOL
England
BS2 8HW

Study participating centre
University Hospital Coventry
Clifford Bridge Road
COVENTRY
England
CV2 2DX

Study participating centre
Royal Bournemouth Hospital
Castle Lane East
Bournemouth
England
BH7 7DW

Study participating centre
Poole Hospital
Longfleet House
POOLE
England
BH15 2JB

Study participating centre
Leicester Royal Infirmary
Infirmary Square
LEICESTER
England
LE1 5WW

Study participating centre
Glenfield Hospital
Groby Rd,
Leicester
England
LE3 9QP

Study participating centre
Leicester Children's Hospital
Leicester Royal Infirmary
Infirmary Square
LEICESTER
England
LE1 5WW

Study participating centre
Royal Lancaster Infirmary,
Ashton Road
LANCASTER
England
LA1 1RP

Study participating centre
Furness General Hospital
Dalton Lane
BARROW IN FURNESS
England
LA14 4LF

Study participating centre
University Hospitals of North Midlands NHS Trust
Newcastle Road,
Stoke-on-Trent
STAFFORDSHIRE
England
ST4 6QG

Study participating centre
Derriford Hospital
Derriford Road
PLYMOUTH
England
PL6 5FP

Study participating centre

Walsall Manor Hospital
Moat Road
WALSALL
England
WS2 9PS

Study participating centre
Warrington Hospital
Lovely Lane
WARRINGTON
England
WA5 1QG

Study participating centre
Watford General Hospital NHS Trust
Vicarage Road
WATFORD,
England
WD18 0HB

Study participating centre
West Suffolk NHS Foundation Trust
Hardwick Lane
Bury St Edmunds
SUFFOLK
England
IP33 2QZ

Study participating centre
Worthing Hospital
Lyndhurst Road
WORTHING
England
BN11 2DH

Study participating centre
St Richard's Hospital
Spitalfield Lane
CHICHESTER
England
PO19 6SE

Study participating centre
Whittington Health NHS Trust
Magdala Avenue
LONDON
England
N19 5NF

Study participating centre
Arrowe Park Hospital
Arrowe Park Road
UPTON
BIRKENHEAD
England
CH49 5PE

Study participating centre
Alexandra Hospital
Woodrow Drive
REDDITCH
England
B98 7UB

Study participating centre
Worcestershire Royal Hospital,
Charles Hastings Way,
Worcester,
England
WR5 1DD

Study participating centre
Royal Albert Edward Infirmary
The Hawthorns
Wigan Lane
WIGAN
England
WN1 2NN

Study participating centre

Hereford County Hospital
Union Walk
HEREFORD
England
HR1 2ER

Study participating centre
Yeovil District Hospital
Higher Kingston
YEOVIL
England
BA21 4AT

Study participating centre
York Teaching Hospitals NHS Foundation Trust
Wiggington Road
YORK
England
YO31 8HE

Study participating centre
Scarborough General Hospital
Woodlands Drive North
SCARBOROUGH
England
YO12 6QL

Study participating centre
Leighton Hospital
Leighton
Crewe
England
CW1 4QJ

Study participating centre
Ulster Hospital
Upper Newtownards Rd
Dundonald
Belfast
Northern Ireland
BT16 1RH

Study participating centre
Bristol Royal Hospital for Children
Upper Maudlin Street
Bristol
England
BS2 8BJ

Study participating centre
Antrim Area Hospital
45 Bush Rd
Antrim
Northern Ireland
BT41 2RL

Study participating centre
Altnagelvin Area Hospital
Glenshane Road
Londonderry
Northern Ireland
BT47 6SB

Study participating centre
Royal Brompton Hospital
Sydney Street
London
England
SW3 6NP

Study participating centre
Midland Metropolitan University Hospital
Grove Lane
Smethwick
England
B66 2QT

Study participating centre
Doncaster & Bassetlaw Hospitals
Doncaster Royal Infirmary

Thorne Road
Doncaster
England
DN2 5LT

Study participating centre
Liverpool Women's NHS Foundation Trust
Liverpool Womens Hospital
Crown Street
Liverpool
England
L8 7SS

Study participating centre
Hillingdon Hospital
Hillingdon Hospital
Pield Heath Road
Uxbridge
England
UB8 3NN

Study participating centre
George Eliot Hospital
Lewis House
College Street
Nuneaton
England
CV10 7DJ

Study participating centre
Victoria Maternity Unit
Hayfield Road
Kirkcaldy
Scotland
KY2 5AH

Study participating centre
The Walton Centre NHS Foundation Trust
Lower Lane
Fazakerley
Liverpool

England
L9 7LJ

Study participating centre
The Princess Royal Maternity Unit
16 Alexandra Parade
Glasgow
Scotland
G31 2ER

Study participating centre
South Tyneside District General Hospital
Harton Lane
South Shields
England
NE34 0PL

Study participating centre
Royal Stoke University Hospital
Newcastle Road
Stoke-on-trent
England
ST4 6QG

Study participating centre
Nottingham University Hospitals NHS Trust - Queen's Medical Centre Campus
Nottingham University Hospital
Derby Road
Nottingham
England
NG7 2UH

Study participating centre
Harefield Hospital
Hill End Road
Harefield
Uxbridge
England
UB9 6JH

Study participating centre
The Queen Elizabeth Hospital, King's Lynn, NHS Foundation Trust
Queen Elizabeth Hospital
Gayton Road
King's Lynn
England
PE30 4ET

Study participating centre
Queen Elizabeth Hospital
Woolwich Stadium Road
Woolwich
London
England
SE18 4QH

Study participating centre
Epsom Hospital
Epsom General Hospital
Dorking Road
Epsom
England
KT18 7EG

Study participating centre
St Helier Hospital
Wrythe Lane
Carshalton
England
SM5 1AA

Study participating centre
Cleveland Clinic London Hospital
33 Grosvenor PLACE
London
England
SW1X 7HY

Sponsor information

Organisation
Accord (United Kingdom)

ROR
https://ror.org/01x6s1m65

Funder(s)

Funder type
Charity

Funder Name
Sepsis Research (FEAT)

Funder Name
Intensive Care Society

Funder Name
Wellcome Trust

Alternative Name(s)
Wellcome, WT

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Funder Name
Medical Research Council

Alternative Name(s)
Medical Research Council (United Kingdom), UK Medical Research Council, Medical Research Committee and Advisory Council, MRC

Funding Body Type

Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be stored in a publicly available repository (genomicc.org/data).
Type of data that will be shared: summary statistics for GWAS data
When the data will become available and for how long: data will be available as soon as the analysis is completed to a satisfactory standard and will be maintained indefinitely.
By what access criteria the data will be shared including with whom, for what types of analyses, and by what mechanism: Summary data will be publicly available to the public when the analysis has been completed to a satisfactory standard. Prior to the completion of the analysis, the summary statistics, or intermediate files may be made available to collaborators to assist with other analysis plans
Whether consent from participants was obtained: consent has been obtained. The data to be shared openly is summary data and does not contain any identifiable information or data relating to individual genomes
Comments on data anonymisation, any ethical or legal restrictions, any other comments: The summary data/summary statistics do not contain data relating to individual genomes or identifiable information. The exported data are summary statistics that do not contain individual information about individuals. The researchers are using variants with a minor allele frequency (MAF) of 1% which avoids identification of individuals using genetic data (because at least 1% of the population will have the minor allele of the variant which is enough people to be impossible to identify).

IPD sharing plan summary
Stored in publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	genome-wide association study results	04/03/2021	01/06/2021	Yes	No
Results article	Critical COVID-19 results	07/03/2022	31/03/2022	Yes	No
Results article		17/05/2023	25/05/2023	Yes	No
HRA research summary			28/06/2023	No	No
HRA research summary			28/06/2023	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes

Preprint results		08/05/2021	01/06/2021	No	No
Preprint results		08/03/2021	01/06/2021	No	No
Preprint results		22/04/2021	01/06/2021	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes